



GP 2781

PATENT
Attorney Docket No. 27951-00023USPT

#16
LOS
8-12-98

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Billy G. Moon

Serial No. 08/646,484

Filed: May 8, 1996

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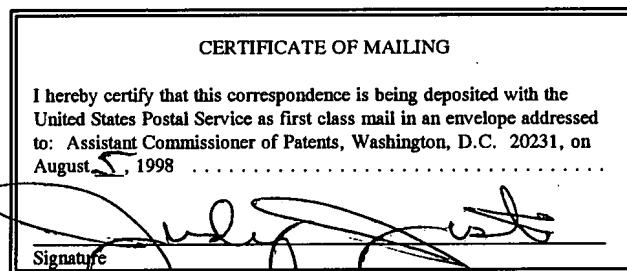
Group No.: 2781

Examiner: Sheikh, A.

For: Half Duplex UART Control for Single Channel
Bi-Directional Wireless Communications

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Assistant Commissioner
of Patents
Washington, D.C. 20231



Dear Sir:

AMENDMENT

In response to the Office Action dated July 7, 1998, the Applicant presents the following comments. The Examiner rejected Claims 1-13 under 35 U.S.C. § 102(b) as being anticipated by Klingler. Applicant respectfully traverses. In the Office Action, the Examiner stated the Klingler reference illustrated processing means for indicating whether the UART is operating in a full duplex mode of operation in column 1, lines 31-56, and that Klingler taught receiver control circuitry for disabling the receiver in response to the indication of a full duplex mode of operation by the processing means in columns 5, lines 1-5. Applicant

does not believe these particular aspects of the invention are taught by the Klingler reference. Initially, with respect to the processing means for indicating whether the UART is operating in a full duplex mode of operation, the Applicant has read column 1, lines 31-56 and finds no reference to a process mean which is capable of determining whether a UART is operating in a full duplex mode of operation. The only reference to full duplex refers to the use of more than one transmission channel, one for transmission and one for reception in order to avoid data collisions (column 1, lines 39-45). The section referred to by the Examiner only disclosed a concept of full duplex operation which involves the use of multiple channels. This does not disclose a processing means for detecting whether a UART is operating in a full duplex mode of operation.

With respect to the Examiner's indication that column 5, lines 1-5 discloses receiver control circuitry for disabling the receiver in response to indication of a full duplex mode of operation by the processing means. Applicant again must disagree. The section referred to by the Examiner is part of the discussion of the timing diagram illustrated in Figure 3. The reference in column 5 only discloses that a first computer will be disabled from transmitting during a pre-determined period of time in order to avoid data collisions. Figure 3 of Klingler illustrates a situation where two separate computers each having an associated UART which transmit between each other on a single channel simultaneously attempt to transmit messages to each other at the same time. When this occurs, transmissions are ceased by each of the computers, and a first one of the computers then transmits its message. In response to this

message, the second computer transmits an acknowledgment "Q", waits for a preselected period time "T1" and then transmits its own message.

The disclosure of column 5 describes the disablement of a computer from transmitting over the communications channels to prevent data collisions due to transmissions from the other computer. The referenced does not disclose receiver control circuitry which disables a receiver within a UART in response to an indication of a full duplex mode of operation by the previously described processing means. Thus, the Klingler reference only describes a disablement of a transmitting computer, not of a receiver within a UART, and the disablement is in response to a data collision between two transmitting computers not in response to detection of a full duplex mode of operation by a processing means. Therefore, Applicant respectfully submits that Claim 11 is distinguishable from the Klingler reference and respectfully requests a notice of allowance for Claim 11, and all claims dependent therefrom.

The Examiner further rejected Claim 12 stating that the Klingler reference taught means for storing data to be transmitted by the transmitter, the means for storing generating a signal indicating when data for transmission is contained therein at column 4, lines 36-49. Applicant respectfully traverses. The stored data referred to by the Examiner describes data which has been received and stored by drivers (7 and 9) during the transmission procedure and is then compared with corresponding transmitted signals to verify signal integrity. The storage area does not comprise an area for storing data prior to transmission by a transmitter, but instead comprises data that has been received at the receiver. Furthermore, there is no indication that the memory storage means generates any signal indicating that there is data to

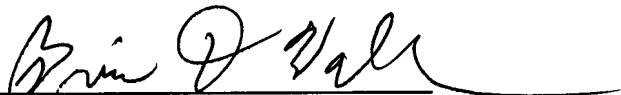
be transmitted. In fact, the memory would not since the data has already been transmitted. Therefore, withdraw of the objection and the Notice of Allowance for Claim 12 is respectfully requested.

The Examiner further rejected Claim 13 in view of Klinger as teaching the receiver control circuitry further disabling the response to a signal indicating data for transmission in the means for storing. As stated previously and with respect to Claim 12, the means for storing apparently generates no type of signal to either the transmitter or receiver portions of the described UART. Withdrawal of the objection is respectfully requested.

The Examiner rejected Claims 14 - 17 under 35 U.S.C. § 103 as being unpatentable over Klinger, et al. in view of Hamilton. The Applicant respectfully submits that each of these claims, being dependent upon previously discussed Claim 11, are allowable over the Klinger reference for the reasons discussed previously. Furthermore, the Hamilton reference fails to overcome the shortcoming of Klinger.

In view of the above comments, the Applicant respectfully submits that all pending claims in the application are allowable over the art of record, and a Notice of Allowance is respectfully requested.

Respectfully submitted,

By: 
Brian D. Walker
Reg. No. 37,751

Dated: August 5, 1998

JENKENS & GILCHRIST, P.C.
1445 Ross Avenue, Suite 3200
Dallas, TX 75202-2799
(214) 855-4706
(214) 855-4300 (Fax)